EXHIBIT A

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of THE UNION MISSION, licensee of Class A digital television station WJGN-CD, Channel 38 in Chesapeake, Virginia, in support of its Application for Construction Permit to specify operation on its post-repack channel, Channel 27. No change in site location, antenna azimuth pattern or antenna height is proposed herein.

It is proposed to mount an ERI omnidirectional antenna at the 111-meter level of the existing 152-meter tower on which the present WJGN-CD antenna is located. The proposed effective radiated power for the facility is 12.0 kW in horizontal plane, which is the allotted repack power level for WJGN-CD. Exhibit B is a map upon which the predicted 51 dBu service contour is plotted. Proposed service contour coverage population is based on the 2015 U.S. Census database. An elevation pattern for the proposed antenna is provided in Exhibit C.

Since the facility proposed herein specifies the exact repack allotment facility assigned to WJGN-CD, no interference study is included herein. A detailed power density calculation is provided in Exhibit D.

Since no change in the overall height or location of the existing WJGN-CD tower is proposed herein, the Federal Aviation Administration has not been notified of this application. In addition, the Federal Communications Commission issued Antenna Structure Registration Number 1047304 to this tower.

EXHIBIT A

I declare under penalty of perjury that the foregoing statements and the attached exhibits, which were prepared by me or under my immediate supervision, are true and correct to the best of my knowledge and belief.

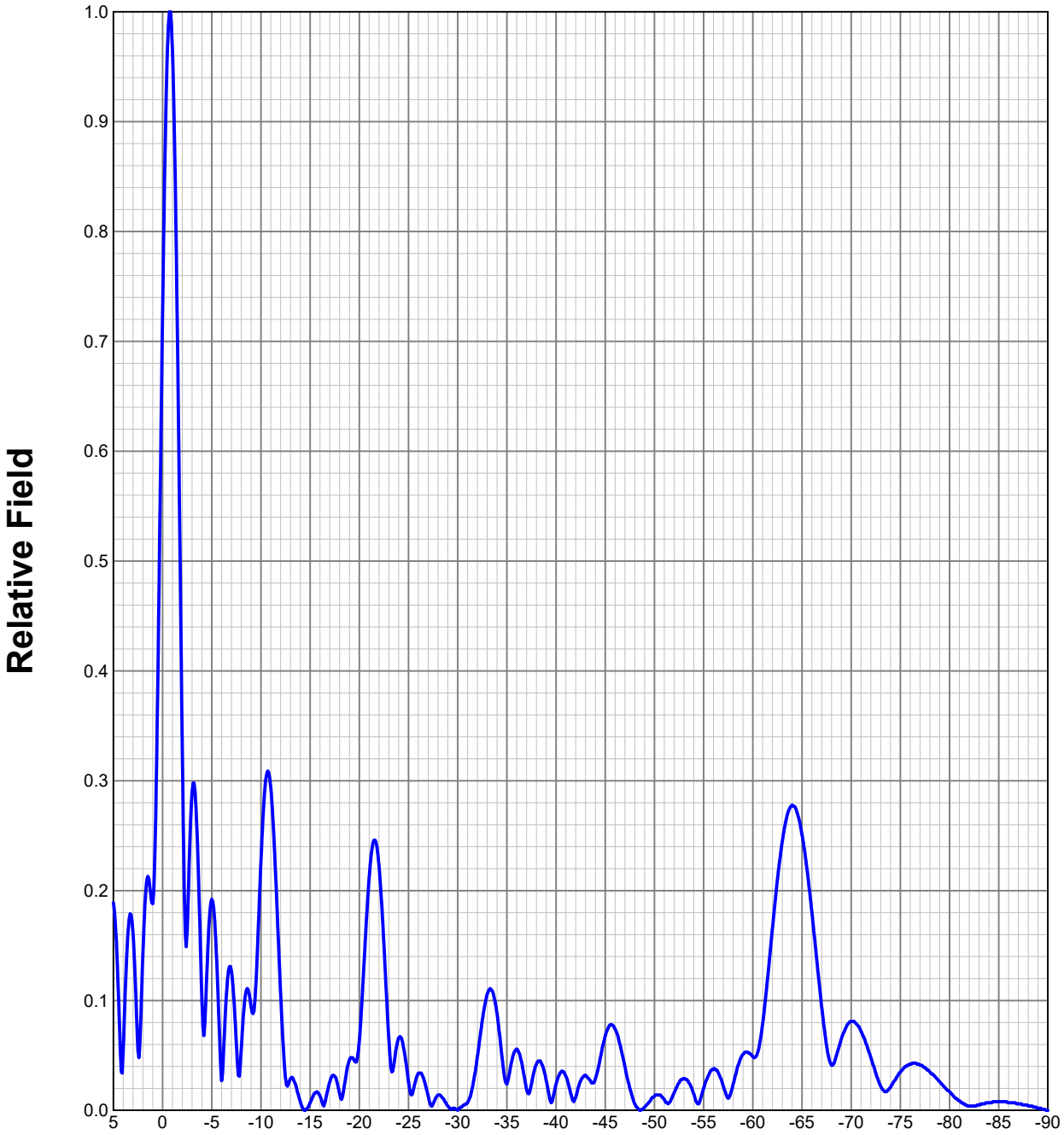
KEVIN T. FISHER

June 27, 2017


CONTOUR POPULATION
2015 U.S. CENSUS DATA
1,537,119 (623,127 HH)
SMITHANDFISHER
FCC 51 DBU
SERVICE CONTOUR
Mathews
Gloucester
Eastville
James City
Northampton
Williamsburg
Gloucester Point
York
Poquoson city
Poquoson
Surry
Surry
Rushmere
Newport News city
Hampton city
Dendron
Hampton
Smithfield
Newport News
Isle of Wight
Norfolk city
WJGN-CD
Portsmouth city
Norfolk
Virginia Beach
Windsor
Virginia Beach ci
Suffolk
Suffolk city
Chesapeake city
Gates
Gatesville
Winton
Currituck
Harrellsville
Scale 1:600,000
0 5 10 15 mi
Winfall
EXHIBIT B
PREDICTED SERVICE CONTOUR
PROPOSED WJGN-CD
CHANNEL 27 - CHESAPEAKE, VIRGINIA

ELEVATION PATTERN

Type:	ALP24L3		Channel:	27
Directivity:	Numeric	dBd	Location:	
Main Lobe:	25.21	14.02	Beam Tilt:	-0.75
Horizontal:	13.29	11.23	Polarization:	Horizontal



Preliminary, subject to final design and review.

EXHIBIT D

POWER DENSITY CALCULATION

PROPOSED WJGN-CD
CHANNEL 27 – CHESAPEAKE, VIRGINIA

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Chesapeake facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 12.0 kW, an antenna radiation center 111 meters above ground, and based on the specific elevation pattern for the proposed ERI antenna, maximum power density two meters above ground of 0.0021 mW/cm^2 is calculated to occur 53 meters from the base of the tower. Since this value is only 0.6 percent of the 0.37 mW/cm^2 reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 27 (548-554 MHz), a grant of this proposal may be considered a minor environmental action with respect to public exposure to non-ionizing electromagnetic radiation.

Further, the station owner will take whatever precautionary steps are necessary, such as reducing power or leaving the air temporarily, to ensure that workers operating in the vicinity of the antenna are not exposed to excessive non-ionizing radiation.